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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,079

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Adrianus Johannes Wilhelmus Van Der Leest

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EXAMINER

IRVIN, THOMAS W

ART UNIT

PAPER NUMBER

3683

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/581,079	<b>Applicant(s)</b> VAN DER LEESE ET AL.	
	<b>Examiner</b> THOMAS W. IRVIN	<b>Art Unit</b> 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 May 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20060531</u> .                                                | 6) <input type="checkbox"/> Other: ____.                          |

**DETAILED ACTION*****Information Disclosure Statement***

The information disclosure statement filed May 31, 2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “motor vehicle” and “engine” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the

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brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-13, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Regarding claim 1, the phrase "i.e." renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05. Additionally, in line 14, the reference number "44" is not found in the drawings to identify "one pulley disk", and in line 35 "ration" should be changed to read -- ratio --.

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A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 3 recites the broad recitation "in the range between 1.2 and 1.6", and the claim also recites "in the range between 1.3 in low and 1.5 in overdrive" which is the narrower statement of the range/limitation.

Regarding claim 9, the phrase "push belt type" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "push belt type"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05.

Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, and 6-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Brandsma et al. (2003/0144097).

In Re claims 1, 14, and 15, Brandsma et al. disclose a continuously variable transmission (1) provided with a primary pulley (2) and a secondary pulley (3), around which there is arranged a drive belt (10) which, at least when the transmission (1) is operating, is clamped, via substantially axially oriented running surfaces (16) arranged on either side of the drive belt (10), between two conical pulley disks (21, 22) of the primary pulley (2) with a primary and secondary clamping force (Cf) in order to be able to transmit a supplied torque with the aid of frictional forces from the primary pulley (2) to the secondary pulley (3), a contact surface of at least one pulley disk (21,22) with respect to the drive belt (10) being provided, at least as seen in a cross section thereof that is oriented perpendicular to a tangential direction, with a curvature (see figs. 4-5), with the result that in said cross section a contact angle ( $\alpha, \beta$ ) between a tangent line on the contact surface and a radial direction varies in relation to a radial position of a contact point between the respective running surface (11) of the

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drive belt (10) and the contact surface varies between a lowest value, with respect to the vertical, at the location of a radially innermost position on the contact surface and a highest value at the location of a radially outermost position on the contact surface, and a transmission ratio of the transmission (1) being defined as the quotient between the radial position for the secondary pulley (3) and the radial position for the primary pulley (2), characterized in that as a result of the contact angle ( $\alpha, \beta$ ) being adapted in relation to said radial position and at least in the largest transmission ratio a clamping force ratio between the primary clamping force and the secondary clamping force has a value between 1 and the clamping force ratio in the smallest transmission ratio. Additionally, it is understood that the friction force is greater at a radially inner most running radius than a radial outer most running radius.

In Re claim 2, the system of Brandsma et al. appears to be meet the limitations of the claim in that the clamping force in the primary and secondary pulley change depending on the running radius of the drive belt, and that the clamping force becomes smaller as the running radius of the drive belt increases.

In Re claim 6, the contact angle ( $\alpha, \beta$ ) in relation to said radial position is at least substantially equal for the two pulley disks (21, 22; 31, 32) of a respective pulley (2, 3).

In Re claim 7, a lowest value of the contact angle ( $\alpha$ ) for the pulley disks (21, 22, 31, 32) in relation to said radial position is at least substantially equal for the pulley disks (21, 22, 31, 32) of the two pulleys (2; 3).

In Re claim 8, a highest value for the contact angle ( $\beta$ ) for the pulley disks in relation to said radial position is higher for the pulley disks (21, 22) of the primary pulley (2) than the corresponding value for the pulley disks (31, 32) of the secondary pulley (3) when the transmission is in an overdrive position.

In Re claim 9, the drive belt (10) is a push belt and is provided with at least one set of rings (15) and a large number of transverse elements (13), which can move along the set of rings (12) in the circumferential direction thereof and are provided with the running surfaces (11) (see fig. 3).

In Re claim 10, the contact angle ( $\alpha, \beta$ ) for the two pulley disks (21, 22; 31, 32) of a respective pulley appear to meet the limitations of the claim in that the angle of the secondary pulley is substantially the same or larger than the angle of the primary pulley in the lowest transmission ratio.

In Re claim 11, the contact angle ( $\alpha, \beta$ ) for the two pulley disks (21, 22; 31, 32) of a respective pulley appear to meet the limitations of the claim in that the angle of the secondary pulley is substantially the same or smaller than the angle of the primary pulley in the highest transmission ratio.

In Re claims 12 and 13, the pulleys of Brandsma et al. appear to meet the limitations of the claims (see figs. 4-5).

In Re claim 16, see Figs. 4B and 5B.

In Re claim 17, see figs. 4-5.

In Re claim 18, the clamping force ratio has an at least approximately constant value at each transmission ratio.



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In Re claim 19, discloses that the system is a CVT for motor vehicles (see claim 1).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brandsma et al., as applied to claim 1 above.

In Re claim 3, Brandsma et al. fails to disclose the specific clamping forces of the pulleys. However, Brandsma et al. does disclose that the clamping force may be increased or decreased (see par. 2), and that the clamping force would be greater in an overdrive position than a low-drive position. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have any appropriate clamping ratio between the primary and secondary pulleys, to keep the drive belt properly engaged with the respective pulley, and to adjust the CVT to the desired transmission ratio.

In Re claims 4 and 5, Brandsma et al fail to disclose a factor of safety. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated an appropriate factor of safety into

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the design of the CVT of Brandsma et al. to ensure that the drive belt would not slip or the transmission fail.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS W. IRVIN whose telephone number is (571)270-3095. The examiner can normally be reached on Mon-Fri 8am-4pm, Alt Fri off (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on (571) 272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service

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Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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